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ABSTRACT

This brochure provides summaries of 23 exemplary, research, and curriculum projects known as the Vocational Improvement Program that share three concerns: meeting needs of underserved students, sex fairness, and excellence in vocational education. The 14 exemplary projects focus on vocational exploration and skill building in marine and related occupations for the handicapped, solar energy training, Hispanic vocational exploration, career and occupational awareness, ownership skills for seniors in vocational-technical schools, sex equity in counseling and vocational education, career exploration, energy conservation skills, carpentry and building maintenance curriculum for special education, exploring careers, inservice training for handicapped, encouraging Comprehensive Employment and Training Act/Vocational Education linkages, life career plan, and bilingual vocational training. Seven research projects deal with shop theory curriculum development using audiovisual aids with special needs students, training vocational teacher trainers, developing curriculum-based skill assessment instruments, vocational agriculture, developing occupational task structures and training time standards for cooperative vocational education, school climate, and Greater New Haven training needs. The two curriculum projects concern two curriculum revision programs. Names, addresses, and phone numbers of program directors are provided. (YLBN)

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1979-1981 VOCATIONAL EDUCATION IMPROVEMENT PROJECTS

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For further information about the Vocational Improvement Projects Program, or any of the projects described in this brochure, contact:

Dr. Valerie Pichanick
Program Director
Vocational Improvement Projects
Bureau of Vocational Program Planning and Development
Connecticut State Department of Education
Post Office Box 2219
Hartford, CT 06115
(203) 566-3430

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Foreword

Connecticut's Comprehensive Plan for Elementary and Secondary Education *calls for the State Department of Education to engage in numerous activities to aid in improving the range and quality of programs offered in the state's public schools. Chief among those activities are research and dissemination efforts to share information about successful and innovative practices.*

The Comprehensive Plan formalizes a long-standing commitment by the State Department of Education to support, through grants, the development and piloting of exemplary projects in vocational education, research on critical issues and curriculum development in new or changing occupational fields. This is the Vocational Improvement Program.

The purpose of the Vocational Improvement Program projects is three-fold. First, these projects meet the needs of the community or district where they are operated by serving a special group of students; by meeting a specific district goal; by updating or expanding a program. Second, each project serves as a model for other communities, so that good ideas can be disseminated and one grant can benefit many school systems. Finally, this program of support is part of a broader picture of improving quality education. The Department of Education selects programs each year which help to further the goals of the agency, and move us closer to the twin objectives of equity and excellence in public education.

This brochure is an important part of the Vocational Improvement Program. Through this medium, we hope to introduce to the entire vocational education community the creative thinking, planning and administrative activities which have resulted from this grant program. However, this is but a beginning. We hope you will want to explore the projects in greater detail, and perhaps replicate or adapt them to meet needs in your district or community.

C. M. Green
Associate Commissioner
Division of Vocational and
Adult Education

Introduction

This brochure is intended to introduce you to the research, curriculum development and exemplary vocational/career education projects known as the Vocational Improvement Program. This program, which the Connecticut State Department of Education has operated since 1979, represents a creative partnership between state government and local school district educators – a partnership that fosters the development and growth of new ideas as well as solutions to vocational education problems.

These projects, funded under the federal Vocational Education Act, share a commitment to meeting the needs of traditionally underserved students – handicapped, Hispanic, female, minority and educationally disadvantaged youngsters. Each of the projects is also, directly or indirectly, concerned with promoting equal treatment of males and females in vocational and career education. Furthermore, each is committed to excellence in vocational education; to moving beyond adequacy; to meeting all *(not just some or most) students' needs; and to making creative and maximum use of available resources.*

Some of the Vocational Improvement projects were pilot programs that have been expanded and included as integral parts of school district programs. Others – like the curriculum projects – fill a single immediate need, but also offer a model of effective process which can be used again in the future. All the programs offer the possibility of adaptation and replication in schools throughout Connecticut.

This is an appropriate time to express our appreciation to our "partners" in this activity – the project directors and their organizations and boards of education – not only for their creative work, but also for their willingness to continue to share what they have learned with the education community. Special appreciation is also due to Dr. Valerie Pichanick, the State Department of Education Project Officer for the Vocational Improvement Program. Her tireless efforts – from the selection of the proposals to the dissemination of the results – have been critical to this program's success.

The summaries which follow will provide you with a quick look at the various projects. Their program directors are also resources, and will be happy to provide further details about their programs. We hope you will contact them or the Bureau of Vocational Program Planning and Development for further information about the programs that interest you.

Elizabeth M. Schmitt
Chief, Bureau of Vocational Program
Planning and Development

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Exemplary Projects

Vocational Education for the Handicapped

Vocational Exploration and Skill Building in Marine and Related Occupations

THE Area Cooperative Education Services (ACES) program, titled, "Vocational Exploration and Skill Building in Marine and Related Occupations," operates on several levels, reflecting the complex interaction of social, academic, economic and individual factors which affect youth employment.

On one level, the program is intended to train high school aged handicapped and/or disadvantaged youth for employment, thus meeting the special need these youngsters have for career preparation. By focusing on the skills and training needed for employment in marine and related trades, the program accomplishes several purposes: It prepares youngsters for available jobs (Greater New Haven has always provided year-round employment opportunities in marine-related trades); and it helps to fill an important need of the local economy (currently no place in Greater New Haven provides specific training in the marine maintenance field, a costly responsibility that has consequently fallen to employers).

The 24 students enrolled in the first year's program not only received training in trade skills, but critical assistance in developing related academic (math and reading), employability (finding, getting and keeping a job) and decision-making skills.

While primary training is in marine vocations, and every effort is made to place students in similar jobs, the program is designed so that those interests, skills and aptitudes may be transferred to many other occupations. In fact, students who cannot be placed or are not interested in marine vocations, will have the skills appropriate for over 150 other occupations.

Four instructional modules compose the basic vocational training program: engine mechanics and restoration; painting, restoration, and fiberglass; and electrical installation and maintenance. Students explore all four instructional modules and select two for in-depth study. Support services -- in reading, math, blueprint reading, seamanship, safety, navigation, boat handling, first aid, employability skills and individual counseling and placement services -- are available to all the students.

The first class included hearing impaired and mentally retarded youngsters, those with other physical handicaps, emotionally disturbed and learning disabled students. The students' success attests to the quality of the program: 100% of those completing the program have been placed in a job or have continued training or education in marine or related fields.

ACES is a regional education service agency for South Central Connecticut, serving 27 school districts. The board of directors is composed of one member of the board of education from each of the school districts served. Students from many of these districts attend the marine vocational program.

Vocational Exploration and Skill Building in Marine and Related Occupations (1979-81 Exemplary Project)

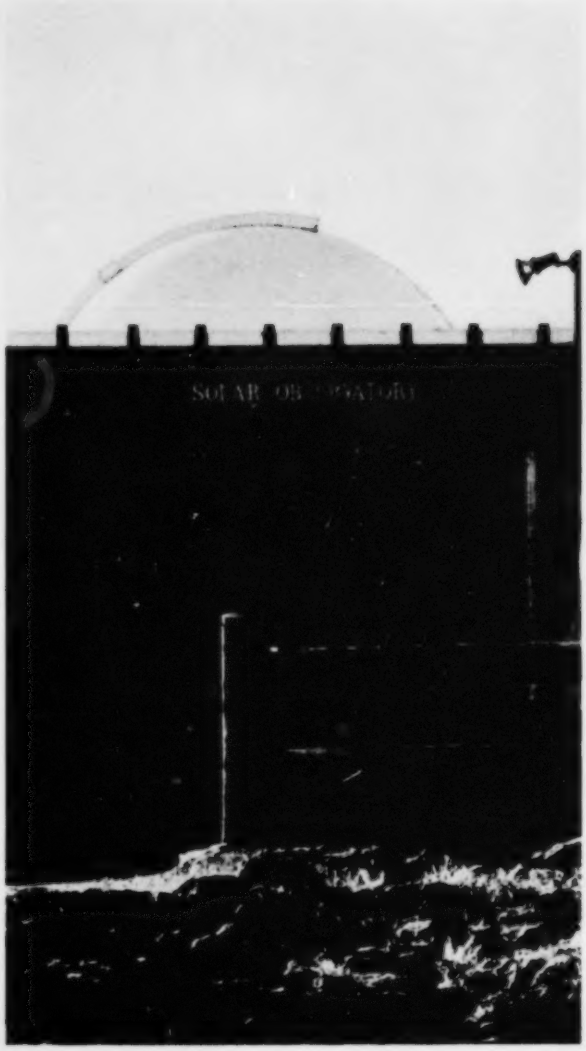
Jean Matteson, ACES
800 Dixwell Avenue
New Haven, CT 06511
(203) 562-9967

Staff Training for Tomorrow's Jobs

Model Solar Energy Training Program

ONE institutional barrier [to effective use of solar energy systems] is lack of skills in installing and maintaining solar systems. Indeed, recent experience suggests that poor installation is a far greater problem than the reliability of the solar equipment itself." Thus, the report of the Energy Project at the Harvard University Business School hit on a growing problem of modern society, and an important challenge to vocational education: Will we have the technical skills to succeed as we move toward our goal of energy-independence using new energy technologies?

Recognizing that an important key to the success of developing solar technologies would be the availability of skilled labor to produce, install and maintain it, the Talcott Mountain Science Center in Avon created a unique training program for vocational-technical and high school staff. The program's goal is to develop curriculum materials which would enable vocational-technical and high school teachers to add solar energy technical training to their vocational curricula.



Classes were held on Mondays after school hours. In addition to the weekly lecture and laboratory sessions, which included analysis of the Center's solar system, the teachers visited and studied a private home designed to maximize both passive and active solar energy techniques.

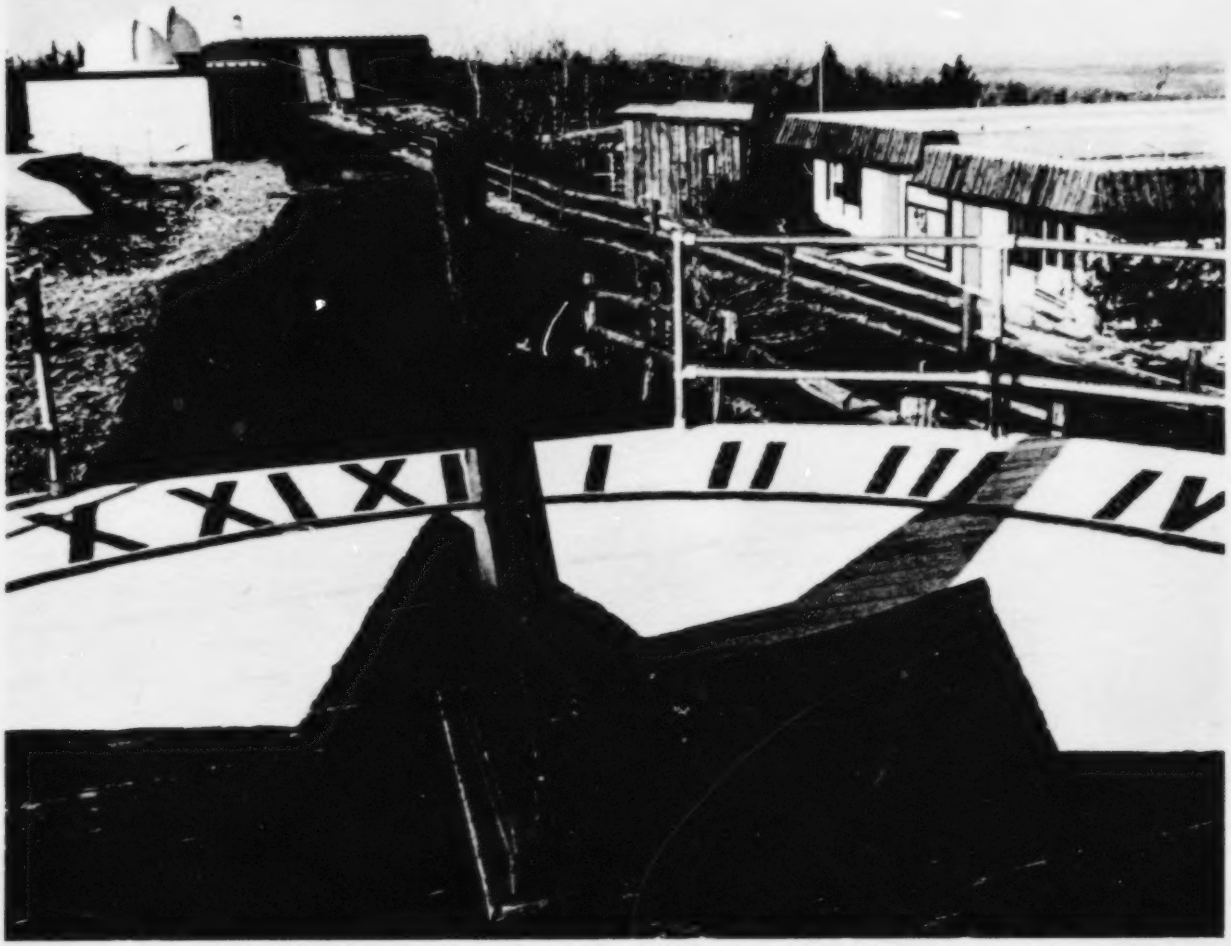
Once the class had mastered the fundamental concepts and techniques, it entered the "hands-on" portion of the program – the installation of a solar hot water system in the home of one of the participants. Though this required some 60 work hours, it was merely preparation for the major class project: the installation and refurbishing of the Talcott Mountain Science Center's newest solar equipment. Not only did the project hone the technical skills of the class members, but it served

as a valuable demonstration project for visiting teachers and students from around the state.

The pilot class helped to refine the solar technology curriculum, and added a comprehensive glossary of technical terms. For their efforts, the class members received 3 credits through the University of Hartford. Twenty-five vocational instructors from throughout Connecticut are enrolled in the second year of the program. The course will continue to be offered as an after-school program, for 3 credits, through the University of Hartford.

Model Solar Energy Training Program
(1979-81 Exemplary Project)

Dr. Donald P. LaSalle, Director
Talcott Mountain Science Center
for Student Involvement
Montevideo Road
Avon, CT 06001
(203) 677-8571



Hispanic Vocational Exploration

THIS cooperative venture is an excellent example of one good idea giving birth to many others. Launched as a vocational exploration project for Hispanic youngsters, the program is also a success in cooperative education between local school districts and regional vocational-technical schools; an effective recruitment effort to bring Hispanic youth into the vocational schools; an excellent community outreach program, and a creative bilingual education program.

The Hispanic Vocational Exploration Project is a collaborative effort between two Hispanic agencies (The Spanish American Cultural Organization and Nuestra Casa), the New London public schools and the area's regional vocational-technical schools.

The project addresses a rather complex dilemma of Hispanic youth: Gainful employment requires marketable skills, which result from training and education. Yet, to a large extent, Hispanics have not participated in the established programs for training and education, and therefore do not acquire the skills needed for gainful employment.

In the New London area where the project took place fewer than 20 Hispanic students were enrolled in *both* area vocational-technical schools. This is a typical pattern throughout the state. Such low Hispanic enrollments result from inadequate vocational and career awareness programs for this population; linguistic limitations which interfere with success; lack of bilingual staff, and a lack of sensitivity to cultural differences.

It was to address these multiple problems that the Hispanic Vocational Exploration Project was created. The focus of the program is a group of 20 eighth grade Hispanic youths. These youngsters participate in an after-school exploratory program (of three two-hour sessions per week) at the Southeastern Regional Vocational-Technical School in Groton. Students take a four-week course in each shop (including carpentry, health services and plumbing), during which time they are

given both general instruction and the opportunity for "hands-on" practical experience. Each shop's curriculum includes safety procedures, an introduction to the basic equipment used and information about career possibilities in each trade. When possible, students visit related work sites and industries where the trades are practiced.

Clearly, the key to success of this multifaceted program is the bilingual counselor/supervisors who are assigned to each group of 10 students. The counselor/supervisors act as the support team, interpreters and assistant instructors for the students. They pick them up; drive them to the Voc-Tech school; accompany them in each of the shops, and, as needed, serve as interpreters and assistants to the shop instructors. At the end of each day's classes, they drive the students home.

Although most of the participants were not, contrary to initial expectations, Spanish language dominant (and interpretation was not a major need of the students), it is clear that the success of the program owes much to the fact that the Hispanic presence was visible at all times. The bilingual/bicultural staff – from the two agencies sponsoring the program – made it possible to have an effective outreach and recruitment program with Hispanic families (an effort which included home visits, Spanish-language media releases, telephone calls, parent conferences and the like). Because of the bilingual/bicultural staff, a positive rapport developed between the project personnel and the students; and it was possible to include Spanish dominant youth in the training program. Furthermore, it helped to sensitize the public and the vocational-technical school staff to work cooperatively and effectively with Hispanics.

Other important features of the program included the careful, Spanish-language recruitment program, directed at both students and parents; a solid orientation program for all parties concerned; an orientation for school administrators and staff on the Hispanic culture and on the social and economic backgrounds and linguistic capabilities of the students in the program; a heavy emphasis on individual counseling at the junior high school, and structured tutorial and assessment services complementing the counseling program.

The program also included a series of career education workshops which were voluntary. Among their purposes was to foster group solidarity, a goal further enhanced by a series of planned recreational and social activities, including sports and picnics.

Particularly noteworthy is the fact that the program is having a positive effect in the enrollment of Hispanic students in the vocational-technical school.

Hispanic Vocational Exploration Project
(1979-81 Exemplary Project)

Lillian Morales Fletcher
Nuestra Casa, Inc., 60 Jay St.
New London, CT 06320
(203) 442-3211

Career and Occupational Awareness

East Lyme Career and Occupational Awareness Program

THIS exemplary project at East Lyme High School was directed toward academically disadvantaged students in grade 10 who needed to understand better their own interests and abilities, to be more aware of career alternatives and to have a greater awareness of job responsibilities, *prior* to participation in the district's Cooperative Work Experience Program.

First, potential students for the special career awareness program were identified. They included youngsters with a lack of awareness of employment opportunities locally, state-wide and nationally; no knowledge of job skills necessary to enter various career fields; no self-awareness of personal strengths; a lack of decision-making skills; a lack of maturation towards finishing high school and preparing for a career, and/or significantly low academic test scores. Furthermore, the experience was planned for disadvantaged youth in a suburban community – youngsters not often provided needed support.

Students were selected for and counseled about the program by guidance department and special education staff. Self-referrals and students planning to enter the Cooperative Work Experience Program in Grade 11 were also encouraged to participate.

The program had a number of objectives, some dealing with specific career skills, others with the broader concern of motivating students to complete high school. Helping 50 tenth graders to be aware of job opportunities and trends (locally, statewide and nationally) was one objective. The program enabled students to learn general job-related skills necessary to enter a variety of occupations; to be able to identify their interests and abilities and relate them to specific jobs; to demonstrate decision-making skills and positive motivation toward achieving success in schools, and to create an appropriate career development plan.

The program was also intended to prepare students for entry into the Cooperative Work Experience Program at East Lyme High School, or other vocational training programs in the 11th and 12th grades; to provide impetus for students to complete high school, and to create a greater interest among faculty and students in the value of career education and occupational awareness.

The program required limited financial support for operation (an important departure from previous projects needing large budgets and additional staff); and it was sufficiently flexible to be expanded to include larger populations of students with minimal demands for additional resources.

The Career Awareness program made use of a variety of teaching methods, ranging from values clarification exercises and class discussions to speakers, field trips, individual and group counseling and audio-visual presentations. Two semester

courses were taught during the year, consisting of a daily class for 50 minutes over a 20-week period. In addition to counseling and field trip activities, each student was seen in the class every day in a structured situation. The curriculum progressed from general self-awareness to detailed examination of specific career interests.

Pre- and post-tests revealed significant increases in awareness and understanding of career skills, planning, etc., as well as greater awareness of personal abilities and interests. Seventy-seven percent of the students experienced positive changes – in many ways – as a result of the program. About 67% planned to enter the Cooperative Work Experience Program; over half of those remaining expressed interest in pursuing vocational training (industrial arts or business).

Among the keys to success, the project coordinators advise, is small class size; a single staff person with responsibility for coordinating the program and curriculum, and careful coordination of field trips with regular academic activities.

Career and Occupational Awareness Program
(1979-80 Exemplary Program)

Dr. Vijay Sharma-Sachdeva
Director of Guidance
East Lyme High School
Chesterfield Rd.
East Lyme, CT 06333
(203) 739-6946

"Mind Your Own Business"

A Pilot Program to Provide Ownership Skills To Seniors in the VT Schools and Other Educational Institutions

THE challenge: The Small Business Administration reports that although vocational-technical students graduate with excellent skills in their chosen fields, they lack knowledge of business principles and manager/owner skills – part of the reason why 60% of all businesses fail within the first five years.

The response: A business principles course – designed to prepare students for business ownership/management – was required of all seniors at the Norwich Regional Vocational-Technical School during the 1978-81 school years.

"Mind Your Own Business" is a 54-hour module course, designed to help 12th graders become aware of the special abilities needed to succeed in their chosen occupations. Topics range from choosing and financing a small business to an examination of the reasons for business success and failure. The emphasis of the program is on using general educational skills to develop management skills; on problem solving, decision-making and the use of management resources. To the maximum extent possible, students learn through simulated job experiences.

Taught by a certified business educator at Norwich Regional Vocational-Technical School, the course is so written that it can be adapted to any level of instruction. In addition to the secon-

dary level program, a seven-week program was conducted in the adult education session.

A sampling of the curriculum gives an idea of the scope of the program. Among the topics for study and discussion were, opportunities in a free enterprise system; sole proprietorship; corporations; line and staff organization; understanding credit; savings and investments; location of the small business; sources of capital; customer financing; keeping records; the stock market; sales promotion and human relations in business.

The course required three hours of class time per week – time found by reducing all senior English, math and social studies classes by one hour per week. However, the MYOB program was also designed to supplement the basic academic courses, relating English, math and social studies – as well as shop experiences – to the MYOB curriculum.

Over 130 students participated in the program, with career interests including auto mechanics, carpentry, electronics, graphic communications, hairdressing, machine drafting, plumbing and sheet metal.

Mind Your Own Business
(1978-81 Exemplary Program)

Jack Rooke, Director
Norwich Regional Vocational-Technical School
590 New London Tpke
Norwich, CT 06360
(203) 889-8453

"Maybe Next Year"

A Sex Equity Film/Training Session

"MAYBE NEXT YEAR" is a film/workshop project which addresses the problem of sex equity in counseling and vocational education. According to its creator, Patricia Yosha of the West Hartford Schools, its purpose is to "effectively develop an influential program that could raise the consciousness of teachers to the existence and effect of sex-role stereotyping, and ultimately guide educators toward sex-fair behavior."

The problem addressed by the film is pervasive: schools have perpetuated sex-role stereotyping through their course designs, recruitment patterns, counseling procedures and teachers' visual and verbal communications to students. The training module developed by Ms. Yosha is intended to help teachers, administrators and parents to develop information and experience to aid them in reshaping their attitudes about sex-role stereotyping, especially in career counseling and employment training.

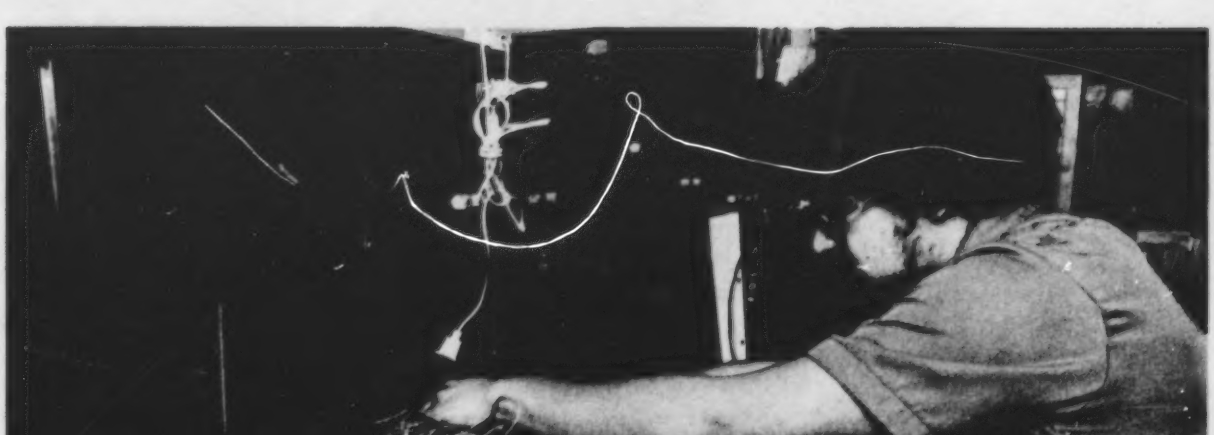
The module consists of three major components – a film, a workshop and a field testing component – and addresses four main issues: identifying sex-role stereotyping and its effects; presenting a rationale for eliminating sex-stereotyped guidance; demonstrating bias-free interactions, and considering possible results of bias-free directions.

The film consists of four film sequences, which are shown over the course of the workshop, alternating with discussion, questions and role-playing sessions.

The film/workshop has been extensively utilized by teachers and counselors in workshops throughout the state with the assistance of the Sex Equity Consultant of the Division of Vocational and Adult Education. It may play an important part in achieving the goal of equal employment opportunity for males and females.

Maybe Next Year
(1979-80 Exemplary Project)

Ms. Patricia Yosha
23 Rundelane
West Hartford, CT 06117
(203) 232-4561



Career Exploration

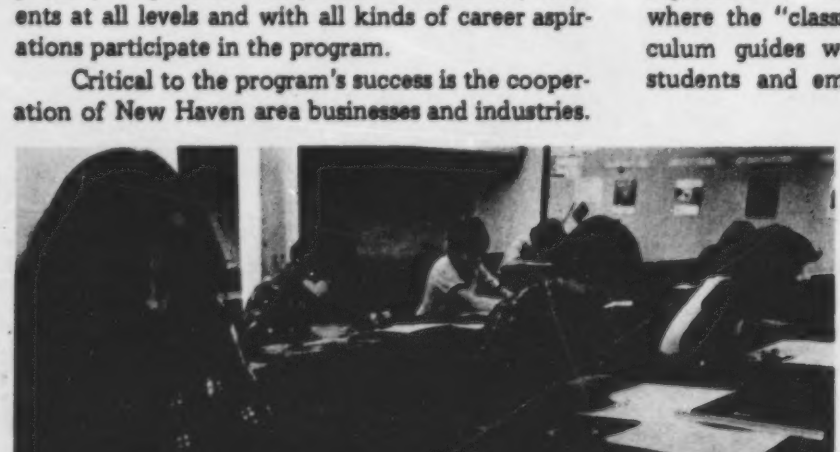
High School in the Community
Career Exploration Program

ACADEMICALLY and socio-economically handicapped students who do not intend to pursue college and are not interested in the traditional vocational areas aren't usually given guidance in selecting a future occupation. It is this group of students that is the target of the New Haven High School in the Community's Career Exploration Program.

Specifically, the Career Exploration Program is intended to help these students identify and decide on career alternatives. Although the primary emphasis is on juniors and seniors, students at all levels and with all kinds of career aspirations participate in the program.

Critical to the program's success is the cooperation of New Haven area businesses and industries. The first year's goal was to establish at least 10 exploratory learning sites with New Haven employers. The results demonstrated clearly that the New Haven community was ready and willing to participate directly in the education of its high school youth. Twenty businesses found the format of the program interesting and contributed time and staff to it, and the project staff anticipate no problems in increasing the number of businesses in subsequent years as enrollments expand.

The exploratory learning sites are the pivitol ingredient of the New Haven program, for that is where the "classrooms" are located. On-site curriculum guides were developed for use by both students and employers at each of the explora-



tion sites. The guides include cognitive, affective and psycho-motor objectives.

The course itself begins with an eight-week, 120-hour careers course where students are introduced to the concept of career clusters; identify skills and abilities required by various occupations and related training programs; learn legal rights related to racial and sexual job discrimination; learn decision-making skills, and begin to identify areas of interest to them. In addition to their regular academic courses, students then spend a total of eight weeks in two learning sites where they are exposed to 6-8 occupations in their area of interest.

After the placements are completed, the students work with the school guidance counselor and career education staff to assess the experiences and to plan academic courses to strengthen areas of weakness.

During the senior year, students go through a similar process, focusing on two occupations. They also begin to identify and apply to post-secondary training programs.

Career Exploration
(1979-81 Exemplary Program)

Ms. Charlotte Hilton
High School in the Community
45 Nash St., New Haven, CT 06511
(203) 787-8535

Energy Conservation Skills

PACE: Positive Alternatives
For the Conservation of Energy

PROJECT PACE provides an alternative program for disadvantaged Stamford students who are likely not to be college-bound and who also lack skills that would enable them to become employed. These are the inner-city youth, most of whom are enrolled at Stamford's Alternative High School.

PACE is also a ground-breaking program designed to meet a growing community need for the understanding and skills required for energy conservation.

It is hoped, too, that unskilled and marginally employable students of high-school age who face uncertain employment opportunities might find employment in the field of alternative energy systems installation.

In short, Stamford needs a skilled labor force to install, maintain and service energy systems. Its students need employment opportunities and training that also offer expanding career options in the future. Project PACE's ultimate goal is to meet both of those needs, training a group of students who would help form the basis of a new skilled labor force for the future.

Twenty-three students were selected to participate in the pilot program. These youngsters were from low-income families and also were academically disadvantaged. Through Project PACE, they gain first-hand knowledge of problems and issues and acquire the various work skills needed for energy conservation.

They are given three hours of basic instruction a day, four days a week. The course includes the use of tools, processes, procedures and skills necessary to complete several major class projects. Students first learn to caulk and weatherstrip windows, then progress to major storage and room renovation projects as their carpentry skills improve. Field trips and additional study of solar water collectors and buildings, as well as instruction in job application, attitudes and other employment skills, round out the course of study.

Since few programs currently exist in this area, it was necessary to develop original guidelines for the course of study and to prepare a manual dealing with the work skills students would encounter during the year.

Project PACE: Positive Alternatives for the Conservation of Energy
(1979-81 Exemplary Program)

Mr. Michael Tozzoli
Stamford Public Schools
195 Hillandale Avenue
Stamford, CT 06902
(203) 358-4317

Special Education Curriculum

Implementation of a Carpentry and Building Maintenance Curriculum Within a Special Education Setting

A LARGE population of secondary school students in Connecticut exhibits severe antisocial behavior which cannot adequately be addressed in the normal classroom setting.

Naturally, frustrating learning experiences prevent these young people from gaining the training necessary for occupational success. Teenagers like these have high rates of unemployment; have difficulty holding jobs, and their skill levels are so low as to prevent them from progressing in the world of work. They need training in vocational areas which can provide them with the skills necessary to function in society. Moreover, such training must also include strategies designed to improve their social behavior.

The CAEC (Cooperative Alternative Education Center) of the Cooperative Educational Services Center (CES) in Norwalk is designed to meet the dual training needs of these young people. Some 42 students, aged 12-19, from seven school districts in the CES area, receive academic and social training through a daily schedule which can be modified hourly, if necessary, to respond to particular behavioral situations. The typical school day includes some training in the fields of carpentry, building maintenance and custodial services.

Implementation of a Carpentry and Building Maintenance Curriculum Within a Special Education Setting
(1979-81 Exemplary Project)

Mr. James Mullen
Cooperative Educational Services
11 Allen Road
Norwalk, CT 06852
(203) 847-3873

Exploring Careers

Exploring Careers,
Cooperative Educational Services

THERE are multiple objectives of the "Exploring Careers" program directed by the Cooperative Educational Services (CES) regional center in Norwalk. Overall, the goal of "Exploring Careers" is to improve career/vocational awareness of 7th and 8th graders in schools in the CES regional service area. However, the program has the potential for much greater impact, through the creation of a variety of adaptable model programs and materials.

The program designed a series of seminars for teams of educators (principal, counselor, teacher) from Bridgeport area middle or junior high schools. These seminars included work-site visits and curriculum development activities. The teams then developed and implemented model vocational exploratory programs for 7th and 8th graders, using the career cluster concept and emphasizing emerging career areas. Special attention was also given to identifying and eliminating racial, sex and ethnic biases in the programs.

Exploring Careers
(1980-81 Exemplary Project)

Ms. Joan Abeshouse
Cooperative Educational Services
11 Allen Road
P.O. Box 2087
Norwalk, CT 06852
(203) 847-3873

Inservice Training for the Handicapped

Inservice Training in Vocational Education For the Handicapped

DESPITE significant strides in recent years to expand vocational education opportunities for handicapped students, equal opportunity, in the fullest sense, is still denied these youngsters because of the scarcity of appropriate materials and trained instructors.

The "Inservice Training . . . " program, developed by Psychoeducational Associates, Inc., addresses the problem of training administrative officials and teachers in the state's Regional Vocational-Technical Schools to understand the learning and achievement problems of handicapped children. Such training will teach vocational educators about the learning problems of handicapped students, system adaptations, admission and placement, due process and compliance and the use of available resources. The project will also provide training for vocational instructors and administrative staff in techniques that will lead to the *reliable* interpretation of individual needs, and the *reliable* adaptation of materials and instructional practices to meet these needs.

Four workshops for VTS administrative and teaching staff who provide vocational education to handicapped children will be held to introduce the materials developed by the project. Finally, the materials will be packaged for dissemination throughout Connecticut.

Inservice Training in Vocational Education for the Handicapped (1980-81 Exemplary Project)

Dr. John F. Cawley
Psychoeducational Associates, Inc.
Box 150, RR 3
Storrs, CT 06268
(203) 487-0797

Encouraging Linkages: CETA and Vocational Education

Encouraging Linkages Between CETA Youth Programs and Vocational Education in The State of Connecticut

ONE of the major changes brought about by the Vocational Education Amendments of 1976 was a mandate for cooperation and coordination between CETA youth employment programs and school-based vocational education programs. While the mandate for cooperation is clear, the means to achieve it are not, nor is it clear what the incentives for such cooperation can or should be.

"Encouraging Linkages . . . " is designed to address a number of those issues and problems. First, it will determine the extent to which cooperative efforts are occurring in Connecticut. Second, it will identify and catalog obstacles to cooperative efforts. Third, exemplary programs which effectively eliminate these obstacles will be identified – both in Connecticut and nationally. Fourth, information on effective programs, particularly those overcoming problems of "linkage" will be disseminated. Finally, innovative approaches to improving access for women, minority and handicapped youth to occupational areas will be identified.

The program design calls for a comprehensive review of national literature, a survey of Connecticut program leaders and dissemination through publications and a statewide conference. A CETA/Education Coordinating Task Force has been established to provide assistance and counsel on ways to increase dialogue and to provide feedback on the other aspects of the program.

Encouraging Linkages Between CETA Youth Programs and Vocational Education in the State of Connecticut (1980-81 Exemplary Project)

Dr. Don Thompson
School of Education
Box U-93
University of Connecticut
Storrs, CT 06268
(203) 486-4814

A Life Plan: Project Seek Out

A Life Plan: Project Seek Out
(1980-81 Exemplary Project)

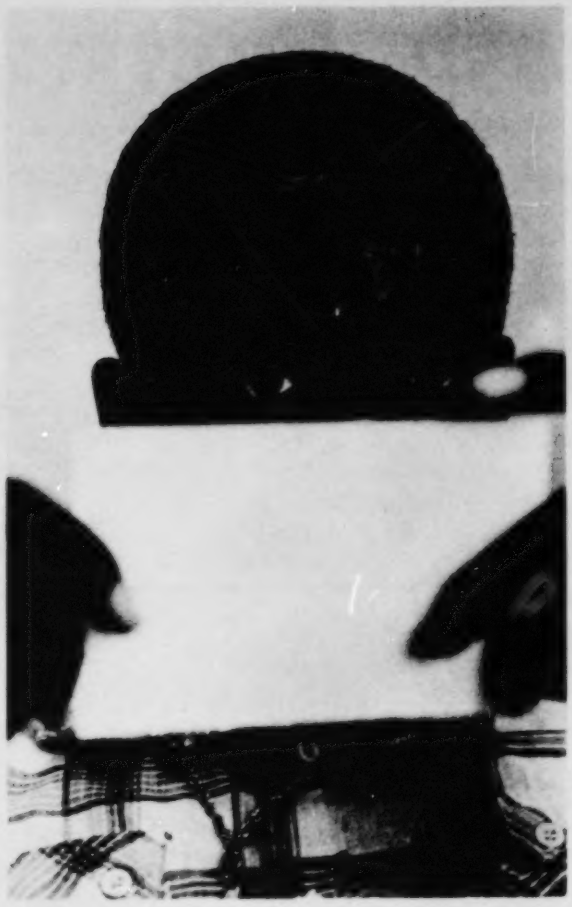
Mr. Roosevelt Parson
Urban League of Greater New Haven
1184 Chapel Street
New Haven, CT 06511
(203) 624-4168

ALTHOUGH teenagers make up only one-tenth of the labor force, they represent one-fourth of the jobless. Furthermore, for Black and inner-city youth, the unemployment rate is nearly 40 percent. It is statistics like these that prompted the Urban League of Greater New Haven to create Project Seek Out, a special program intended to provide 30 young people with the support services they need to become involved successfully in career planning and entry-level training/education, either in the educational setting or on the job.

The focus of the program is a written life career plan, developed over the course of the year for 30 high school students ages 16 to 25. The students are economically disadvantaged, unskilled, unemployed or possess limited English language proficiency, and are not currently involved in any formal vocational training program.

A secondary, but no less important objective of the program is to develop materials and procedures suitable for the regular school setting which will be shared with school authorities as models for replication in the next school year.

An important key to the program's success is a close and on-going relationship with local business and industry. Also important are the contacts and resources available in the city's community organizations, such as the Latino Youth Development JUNTA, New Haven Police Department, neighborhood corporations and New Haven Boys' Clubs.



Bilingual Vocational Training

Bilingual Vocational Training
And Language Development

THE picture is discouraging: Over half of the Hispanic high school students in Hartford have limited English proficiency – a problem that generally results in lower achievement and higher drop-out rates. Statistics show that those that do graduate will be forced into less meaningful low-paying jobs with little or no future.

To reverse this seemingly "dead-end" path, the Spanish American Center and the Hartford Public Schools have created a unique pilot vocational training program that also provides language development assistance. The program coordinates the activities of existing school, community and private sector programs to develop links between education and language development, as well as creating strategies for employment and career development.

Through the program, 20 Hispanic high school juniors and seniors with limited English proficiency will receive vocational training through on-site shop experience. They will also receive career education and assistance in developing employment and decision-making skills. A special effort is being made to help Hispanic female students to develop vocational skills in non-traditional areas.

The program consists of morning academic studies at the high school, twice-weekly sessions in psycho-social career counseling, a specialized language and vocational training program, and on-site shop experiences.

Bilingual Vocational Training and Language Development
(1980-81 Exemplary Project)

Mr. Frank Rosado
Spanish American Center
95 Park Street
Hartford, CT 06106
(203) 527-3039

Research Projects

Project Mainstream

PROJECT MAINSTREAM:
Shop Theory Curriculum Development Using Audio-Visual Aids with Special Needs Students In a Vocational-Technical School Setting

IN an effort to respond to legal commitments to provide equal educational opportunities to handicapped students, the state's regional vocational-technical schools have revised admissions policies, provided training for guidance counselors and school directors in special education programming, and hired additional special education instructors. As a result, the number of special and remedial students in the vocational-technical schools has increased but a new issue has been raised. That is the lack of appropriate curriculum materials for students with a low-level reading ability.

Project Mainstream, developed at Ellis Vocational-Technical School in Danielson, has identified materials and developed curriculum units that help special and remedial students acquire technical skills.

The project objective was two-fold: (1) to identify the materials that would aid special needs students in succeeding in regular shop classrooms, and (2) giving their instructors support systems to provide these exceptional students with marketable job entry skills.

The basic finding of the year's research was a disheartening one: very little material has been published or developed that is specifically geared to enable special needs students to succeed in technical trade areas. Only one set of kits in the basic drafting area had been developed specifically for that purpose; all other audio-visual and programmed materials purchased needed to be adapted for the use of the target population.

Nonetheless, Project Mainstream staff found 36 such programs and materials, which were purchased and adapted for use. From these, they have developed individual learning packages for teaching specific vocational skills to handicapped students.

Project Mainstream: Shop Theory Curriculum Development Using Audio-Visual Aids With Special Needs Students in a Vocational-Technical School Setting
(1979-80 Research Project)

Ms. Jean Emery
H.H. Ellis Regional
Vocational-Technical School
P.O. Box 149
Danielson, CT 06239
(203) 774-8511

Teaching, Learning and Curriculum

RECOGNIZING the need to address more effectively the learning needs of female and minority students in vocational and career education programs, as well as the need for improved, bias-free curricular materials, an eight-week training program was conducted for approximately 20 Connecticut vocational teacher trainers.

The program had two primary areas of focus. The first was to provide participants with foundation training in the theory, content and application of teaching procedures. The second objective was to provide the training in such a way that participants could experience "learning" new content, so that the training procedures would be a part of their experience relative to their key roles. In short, each trained participant would then, in turn, become a trainer of vocational teachers.

Teaching, Learning and Curriculum: Putting It All Together for Vocational Education
(1979-80 Research Project)

Mr. Robert Hanson
Government Studies and Systems, Inc.
University City Science Center
3401 Market Street
Philadelphia, PA 19104
(215) 387-2200

Skill Assessment Instruments

Developing Curriculum Based Assessment Instruments Emphasizing Basic Work Skills To Be Used in Vocational Programs

CRITICAL to the success of any assessment program, and thus to the success of vocational programs, are effective instruments which measure the skills, abilities and attitudes needed in a variety of occupational fields. Creating such instruments was the purpose of a 1979-80 research project conducted by the Norwich Public Schools. The instruments developed were designed to relate to specific vocational program curricula.

The study used the comprehensive listing of general work skills objectives developed by the National Assessment of Educational Progress and applied them to program content currently practiced in four vocational programs: Business and Office Education, Nurse Aide Program, Small Gas Engines and Vocational Agriculture. Draft exercises were developed and reviewed by teachers and employers of high school graduates to ascertain the relevance to the vocational field studied and the importance of the skills to a wide range of occupations.

Two applications for the completed exercise packages were suggested: to determine mastery by a class of students; or, pre- and post-administration of the exercises over the period of the course work, to determine whether improvement in specific skills had occurred.

Developing Curriculum Based Assessment Instruments Emphasizing Basic Work Skills To Be Used in Vocational Programs (1979-80 Research Project)

Mr. William Juzwic, Assistant Superintendent
Norwich Public Schools
Mahan Drive
Norwich, CT 06360
(203) 889-1391

Vocational Agriculture

Connecticut Vocational Agriculture Study

ALTHOUGH Connecticut is thought of as an industrial state, farming is still a major business, and vocational agriculture training an important component of the state's public education program.

The Vocational Agriculture Study examined the extent of the interest in vocational agriculture instruction, existing needs and capabilities of vocational agriculture, and recommended guidelines and options for future vocational agriculture (vo-ag) program development. A broad survey of teachers, students, administrators and others was conducted as well as a review of agriculture and its history in Connecticut.

The study offers a wealth of information on the nature of existing vocational agriculture programs, from the composition of student enrollments to placement of graduates and agriculture needs.

Among the recommendations:

- that all existing regional vo-ag centers should offer adult education programs by 1983. The implication of this recommendation would provide adult education programs to 2,000 adults annually by 1985.
- new regional vo-ag centers should be established to serve secondary and adult populations in urban and small town areas that are not being adequately served by a regional vo-ag center.
- existing regional vo-ag centers should be expanded by facility development and equipment updating to serve a larger clientele of secondary and adult students.

Vocational Agriculture Study (1979-80 Research Project)

Dr. Al Mannebach
Department of Higher, Technical and Adult Education
Box U-93, School of Education
University of Connecticut
Storrs, Ct. 06268

Task Structures; Time Standards

The Development of Occupational Task Structures And Training Time Standards for Cooperative Vocational Education

THE "cooperative" approach to providing vocational education may be defined generally as an arrangement in which an employer cooperates with a local education agency to provide training at the employer's place of business. This training is coordinated with educational programs provided at the sponsoring school. Such an approach has a number of advantages over conventional in-school training programs, including greater relevance, lower costs, better motivation and a better record of job placement.

One of the problems of the cooperative training approach is assessing the scope and rate of the training provided by the employer. For example, an employer training station may not be able to provide for a sufficient variety of tasks to justify a lengthy student placement, or the rate of training may simply be too slow. Because the program's teacher-coordinators cannot possibly be expert in all of the occupations for which training is provided, a tendency exists to allow employers to determine unilaterally both the scope and the rate of training.

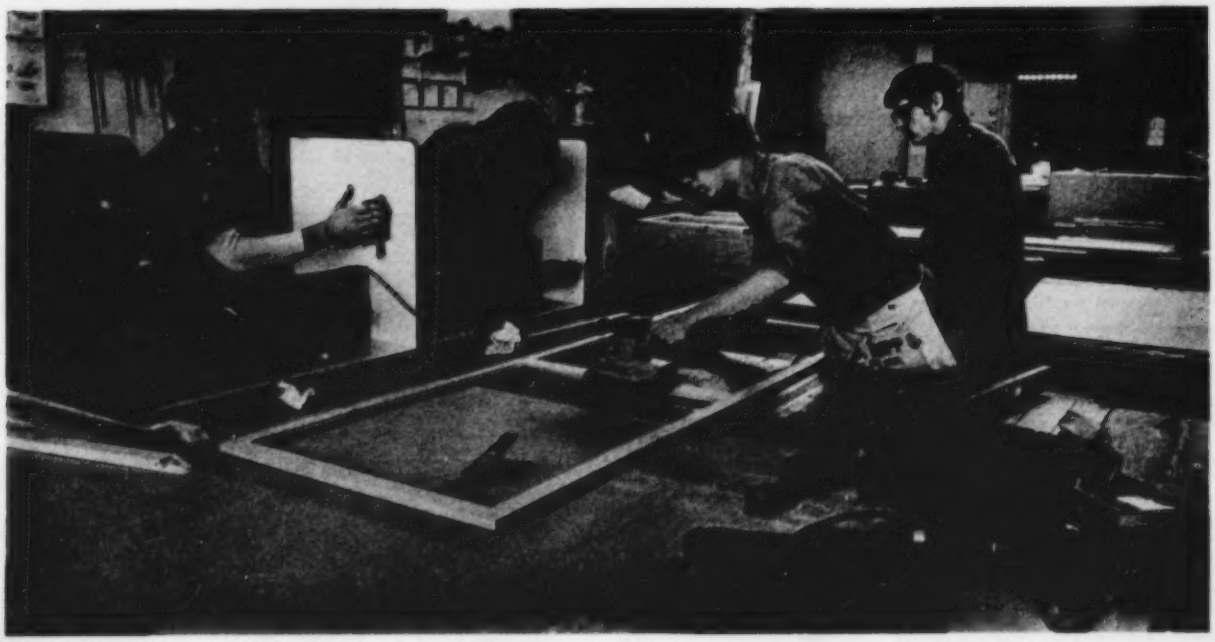
The purpose of this project was to develop two management tools – occupational task structures and training time standards for five occupations in the food service trade – that will enable teacher-coordinators to evaluate more effectively and help improve the training provided by employer training stations.

Occupational task structures enable teacher-coordinators to determine the occupational tasks that must be mastered for successful performance within a given occupation. Training time standards are intended to provide teacher-coordinators with an objective basis to estimate the amount of time students should remain on a given task at their training stations.

In developing these management tools, emphasis has been placed on cooperative programs for food service occupations, however, the methodology can be applied to other occupations as well.

The Development of Occupational Task Structures and Training Time Standards for Cooperative Vocational Education (1979-80 Research Project)

Dr. Richard Pargament
Metis Associates, Inc.
1775 Broadway, Suite 2204
New York NY 10019
(212) 582-6700



School Climate

Measuring and Improving School Climate

"SCHOOL CLIMATE" is defined as "feelings and opinions about various aspects of the school and how it operates, as perceived by school members." It is felt in many ways, affecting the performance of individual students, teachers and administrators as well as the over-all success of the school program. The goals of this project were to measure and then improve the climate in three vocational-technical schools in Connecticut.

The mechanism both for measuring the climate and for developing the plans to improve it, was a "school climate team" consisting of representative administrator, teacher, student and parent members. With the support of on-going training, the team conducted a survey of students and the school staff in each school, using previously developed school climate questionnaires. The teams then interpreted the survey results and developed school climate improvement plans based on the data.

Among the issues affecting school climate which were surveyed were perceptions of the level of friendship and mutual support of members of the school community; perceptions of involvement, equal treatment and accessibility; perceptions of the emphasis placed on learning, on expressiveness and the level of challenge at the school; and perceptions of the extent to which problems are positively handled.

There were some striking commonalities among the schools with respect to the needs and problems identified as well as the resultant plans – an outcome probably due to the nature of education in general, and vocational education in particular.

The project was and remains voluntary. And it is worth noting that all three schools have decided to continue planning and action phases. Furthermore, the Division of Vocational Technical Schools has implemented climate studies in additional schools.

Measuring and Improving School Climate
(1979-80 Research Project)

Dr. William Genova
TDR Associates
385 Elliot St.
Newton, Mass. 02164
(617) 969-0651

Greater New Haven Training Needs

MORE than a simple survey, this study of vocational training needs in the Hamden-New Haven area was designed to meet several objectives. It provided historical, current and projected information regarding occupational opportunities in the New Haven labor market and sought to define the role comprehensive high schools might play in preparing students for work.

A Study to Determine the Need for Vocational Training in the Hamden and New Haven Public Schools Based on an Assessment of the Economic Complex of the Region
(1979-80 Research Project)

Dr. Robert Avery
Hamden-New Haven Coop Education Center
1450 Whitney Avenue
Hamden, CT 06514
(203) 288-7926

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Curriculum Projects

IN an era of dramatic economic and technological change, vocational education and training must be extremely responsive and flexible to be effective. It is therefore necessary to continually review and revise curricular materials to reflect technological and occupational changes.

Project C.O.D. (Curriculum, Organization and Development)

Project C.O.D. (Curriculum Organization and Development) conducted a broad curriculum revision program. Teams of outstanding vocational-technical school teachers, the majority of whom were members of curriculum committees, developed objectives for the project and determined the approaches to be used to meet them. Each team determined course content, based on student needs, course time requirements and relevance with respect to recent technological change. Throughout, emphasis was placed on using sex-fair language and illustrations.

Through project C.O.D., revised curricula were developed for the following trade/subject areas:

Dental Assistant Course Outline Revision, Course Outline for Masonry Blueprint Reading, Course Outline for Electro-Mechanical Blueprint Reading, Barbers Mathematics Program Revision, Exploratory Guidelines Revision, Physical Education Dance Course Outline, Reading Survey – Readability and Useability Study, Phase II, Special Education Guidelines Revision, Reading Guidelines – Grades 9 and 10, Electrical Experiments, Grade 12 Revision, Language Arts Pretest – Grade 9, Data Collection Project, Precision Sheet Metal Trade Analysis, Art and Design Course of Study for Hairdressing and Cosmetology, Algebra I Pre-Test and Post-Test, Physics Laboratory Project Book, Diesel Mechanic Course Outline.

Curriculum Development for Local Education Agencies and Institutions Served by the Bureau of Vocational Services

Working closely with consultants in the Bureau of Vocational Services, State Department of Education, and with the help of various curriculum committees, a second project developed revised curricula for the following trades/subject areas:

Leadership Development for Future Business Leaders of America, Marketing and Distributive Education, Trade and Industrial Education Directory, Health Careers for Connecticut Education and Training Programs, Home Economics Curricula, Industrial Arts-Graphics, Wood Technology and Drafting, Business Education, Mainstreaming Handicapped and Disadvantaged Students in Industrial Arts, Cooperative Work Education – Diversified Occupations, General Related Curriculum Guide.

Project C.O.D. (Curriculum, Organization and Development)
(1979-80 Curriculum Project)

Mr. Robert Smith
Central Connecticut State College
1615 Stanley Street
New Britain, CT 06050
(203) 827-7000

Curriculum Development for Agencies and Institutions Served by the Bureau of Vocational Services
(1979-80 Curriculum Project)

Dr. Ellen M. Winer
410 U.R.
Office of Research Administration
Northeastern University
Boston, MA 02115
(617) 437-2124

1980-81 Research Projects

A Study to Design and Implement Employer Based Evaluation of 1980 Vocational Education Completer and Leavers

Dr. Ronald Loiacono, President
Data Guide, Inc.
242 Fan Hill Road
Monroe, CT 06468
(203) 268-1069

Vocational Career Guide for Connecticut

Dr. Peter E. Schriber
National Evaluation Systems, Inc.
30 Gatehouse Road
Amherst, MA 01002
(413) 256-0444

Evaluation Criteria and Procedures for Vocational Education – Capital Improvement Projects

Mr. Jesse Nalle
Urban Management Institute
University of Bridgeport
230 Park Avenue
Bridgeport, CT 06602

Project DRRIVE: Disseminating Results, Research to Improve Vocational Education

Mr. Dale Hartford
ComEd Associates
P.O. Box 1001
Litchfield, CT 06759
(203) 566-5497

A Study to Determine the Needs in the Middlesex Shoreline Vocational/Career Consortium Relating to Vocational and Career Education Programs

Dr. George Cunningham
Superintendent of Schools
P.O. Box 231
264 Main Street
Portland, CT 06480
(203) 342-1640

An Assessment of Student Selection Criteria and Their Relationship to Academic Achievement for the Regional Vocational-Technical Schools, and the Development of a Follow-Up Procedure. Phase II

Dr. Richard W. Whinfield
School of Education
University of Connecticut
Storrs, CT 06268
(203) 486-4814

Vocational Curriculum Resources Assessment

Dr. Ellen N. Winer
Northeastern University
Center for Secondary School
Work Experience Education
P.O. Box 746
Boston, MA 02117
(617) 437-3444

Teacher Center Feasibility Study

Mr. Charles Haller
Capitol Region Education Council
212 King Philip Drive
West Hartford, CT 06117
(203) 522-6137

A Regional Action Plan for Career and Vocational Education. Phase I: Establishing the Network

Ms. Joan Abeshouse
Cooperative Educational Services
11 Allen Road
Norwalk, CT 06852
(203) 847-3873